

### **REMARKS/ARGUMENTS**

This paper is in response to the Office Action dated December 22, 2010. In the Office Action, the Examiner objected to Claim 2 for various informalities. In response, Applicant has amended Claim 2 as recommended in the Office Action to resolve the issues, as shown above. Therefore, Applicant respectfully requests that the objection to Claim 2 be withdrawn.

In the Office Action, Claims 5 and 14 were rejected under 35 U.S.C. § 112, first paragraph. In particular, the Examiner suggested that the term overlapping is unclear. While Applicant respectfully disagrees, Applicant has amended Claims 5 and 14 to replace the term “overlapping” with “on,” as recommended in the Office Action. Applicant therefore respectfully requests that the rejection of these claims under 35 U.S.C. § 112 be withdrawn.

The Office Action further rejects Claim 6 under 35 U.S.C. § 112, second paragraph, as lacking sufficient antecedent basis for the claim term “the housing (50).” Applicant has amended Claim 6 to recite “the hermetic housing (50)” as suggested by the Office Action. Accordingly, Applicant respectfully requests that the rejection of Claim 6 under 35 U.S.C. § 112 be withdrawn.

The Office Action further rejected Claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over PCT Publication No. WO 02/33260 to Etter as evidenced by U.S. Patent No. 4,984,973 to Itameri-Kinter in view of U.S. Patent No. 5,117,696 to Schmid; and Claims 9-18 under 35 U.S.C. § 103(a) as being unpatentable over Etter in view of Schmid. Applicant has amended Claims 1-2, 5-6, 9, 14, and 17 to further clarify the claimed invention. The Examiner’s further consideration of this application is requested in light of the amendments made above and the following comments.

The present invention generally relates to a sensor assembly for measuring movements of a fluid pump, a fluid pump provided with the assembly, and a cooler comprising such a sensor assembly. Claim 1 has been amended to clarify that the fluid pump is located inside a hermetic housing and that the external measuring circuit is located outside the hermetic housing.

Applicant respectfully submits that no combination of the cited references teaches or suggests all of the recitations of amended independent Claim 1.

The disclosure of Schmid generally relates to a biaxial accelerometer. Schmid, however, fails to discuss or even consider where such an accelerometer could be mounted. It follows that Schmid does not describe mounting the accelerometer in an internal position of a hermetic housing of a fluid pump. Therefore, Schmid does not teach or suggest a sensor assembly mounted in an internal position of a hermetic housing of a fluid pump, as recited in Claim 1.

The disclosure of Etter generally relates to a compressor for a refrigerating agent in a cooling circuit. While Etter appears to disclose a vibration sensor (20) comprising an accelerometer, the sensor is not mounted in an internal position of a hermetic housing of a fluid pump. Rather, Etter discloses that the sensor is located in a terminal box (48), which is mounted external to the compressor stator (16), as shown in the accompanying figure. Etter even suggests that a suitable alternative would be to externally mount the sensor on the cylinder head (36). There is nothing in Etter to suggest that the sensor or the terminal box containing the sensor is located within a hermetic housing of the compressor. Indeed, Etter fails to explicitly disclose whether the compressor itself is contained within a hermetic housing.

As the Office Action notes, the sensor 20 of Etter is located within a terminal box 48. The Office Action suggests that moving items (i.e. the terminal box 48) inside or outside of a hermetic housing would amount to a mere rearrangement of parts without a change in function. Applicant respectfully disagrees with this statement. As stated in paragraph [0009] of the Specification:

It is known that the manufacture of hermetic terminals is particularly complicated, since such a piece should guarantee good electric connection and, at the same time, impart fluid-tightness to the pump. For this reason, it is particularly advantageous for the fluid pump not to need other passageways in its housing, in addition to that already foreseen by the hermetic terminal.

Accordingly, moving the terminal box 48 of Etter inside a hermetic housing would involve significant efforts beyond the mere rearrangement of parts. In particular, the terminal box 48 of

Etter has a number of external connections, such as connections to the temperature sensor 22 for the oil of the compressor, the pressure sensor 26 for the gas of the refrigeration circuit, the temperature sensor 24 for the temperature of the gas of the refrigeration circuit, the power supply of the drive unit, and potentially others. Therefore, a number of openings would need to be made through a hermetic housing if the terminal box 48 of Etter were moved inside of one. Each of these openings would create additional locations susceptible to problematic leakage. Claim 1 avoids these issues by taking advantage of the connections normally used while providing the claimed invention in the recited arrangement.

Additionally, amended Claim 1 recites that the fluid pump and sensor assembly are located within a hermetic housing while the external measuring circuit is located outside the hermetic housing. Applicant notes that if the terminal box were hermetically sealed, element 52 of Etter (which the Office Action equates to the external measuring circuit) would also be located within the hermetic housing. Again, moving this element of Etter outside of a hermetic housing would not be a mere repositioning of parts, but would create similar concerns to those discussed above. Therefore, the cited combination of references fails to teach or suggest a sensor assembly located within a hermetic housing and an external measuring circuit located outside the hermetic housing.

For at least these reasons, Applicant respectfully submits that none of the cited references, whether considered alone or in combination, teaches or suggests each recitation of amended Claim 1. Accordingly, it is submitted that Claim 1 is patentably distinct from any combination of the cited references. For similar reasons, Applicant submits that independent Claim 18, which recites a cooler characterized by comprising a sensor assembly as defined in Claim 1, is further patentable over the cited references.

Independent Claim 9 recites a fluid pump comprising a sensor assembly wherein the sensor assembly is mounted in an internal portion of the hermetic housing of the fluid pump, and wherein the external measuring circuit is located outside the hermetic housing. Therefore, for at

least the reasons stated above with respect to Claim 1, Applicant submits that Claim 9 is also patentably distinct from any combination of the cited references.

The Applicant has made significant contributions to the art which are neither taught nor suggested by the cited prior art. Accordingly, it is submitted that the application is now in condition for allowance and such action is respectfully submitted. Should the Examiner have any questions, comments or proposed claim amendments, he is encouraged to contact the undersigned by telephone so that allowance of this application can be expedited.

The patentability of the independent claim has been argued as set forth above and thus the Applicant will not take this opportunity to argue the merits of the rejection with regard to the dependent claims. However, the Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of the dependent claims at a later date if necessary.

Appl. No.: 10/557,538  
Amdt. dated June 22, 2011  
Reply to Office Action of December 22, 2010

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

/Kevin P. Belote/

Kevin P. Belote  
Registration No. 62,990

**Customer No. 00826**  
**ALSTON & BIRD LLP**  
Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
Tel Atlanta Office (404) 881-7000  
Fax Atlanta Office (404) 881-7777

ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON June 22, 2011.